

Serial No.: 08/840,947

## APPENDIX A

### Claims Marked to Indicate Changes

1. (Twice Amended) A circuit comprising:

a first circuit having a first input and a first output, wherein said first output includes a function of a signal at said first input and also includes a first noise component resulting from noise experienced by said first circuit;

a second circuit, located proximal to said first circuit and having a second input and a second output, wherein said second output includes a function of a signal at said second input and also includes a second noise component resulting from noise experienced by said second circuit, and wherein the second noise component is approximately equal to the first noise component; [and]

a subtractor circuit connected to said first circuit and to said second circuit to subtract said second output from said first output; and

a digital circuit located proximate to said first circuit and to said second circuit.

3. (Three Times Amended) A circuit [according to claim 1] comprising:

a first circuit having a first input and a first output, wherein said first output includes a function of a signal at said first input and also includes a first noise component resulting from noise experienced by said first circuit;

3

Serial No.: 08/840,947

a second circuit, located proximal to said first circuit and having a second input and a second output, wherein said second output includes a function of a signal at said second input and also includes a second noise component resulting from noise experienced by said second circuit, and wherein the second noise component is approximately equal to the first noise component; and

a subtractor circuit connected to said first circuit and to said second circuit to subtract said second output from said first output,

wherein said subtractor circuit further comprises a halving circuit which inputs a signal having an input amplitude and outputs the signal at one-half the input amplitude.

4. (Twice Amended) A circuit comprising:

a first circuit having a first input and a first output, wherein said first output includes a function of a signal at said first input and also includes a first noise component resulting from noise experienced by said first circuit;

a second circuit having a second input and a second output, wherein said second output includes an input signal component which is a function of a signal at said second input and also includes a second noise component resulting from noise experienced by said second circuit, wherein the input signal component is a null output, and wherein the second noise component is approximately equal to the first noise component; [and]

Serial No.: 08/840,947

a third circuit having a third input connected to said first output and a fourth input connected to said second output to subtract said second output from said first output;  
and

a digital circuit proximal to said first circuit and to said second circuit.

6. (Amended) A circuit according to claim [5] 4, wherein said first circuit, said second circuit, said third circuit, and said digital circuit are on a single integrated circuit chip.

14. (Twice Amended) A noise cancellation method comprising the steps:  
supplying a first signal to a first circuit;  
reading a first output from said first circuit;  
supplying a signal to a second circuit which results in a null output from the second circuit, wherein said second circuit is located proximal to said first circuit;  
reading a second output from said second circuit; and  
combining said first output with said second output to produce a combinational output,

wherein a noise component of the first output due to noise experienced by said first circuit is approximately equal to a noise component of the second circuit due to noise experienced by said second circuit.

Serial No.: 08/840,947

wherein said step of combination comprises the step of adding said second output to said first output to produce an added output, and  
wherein said step of combination further comprises the step of inputting a signal having an input amplitude and outputting the signal at one-half the input amplitude.

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